29 June 1979

PROPOSED METHODOLOGY

BACKGROUND

1.   Each of the CIA alternatives for bibliographic service
will be examined in terms of its ability to provide timely and
effective bibliographic support to specified components of the
Intelligence Community. This proposed study methodology will
be examined during the first three weeks of the study. The
methodology will be reviewed, and revisions may be recommended
by members of the study group.

2.   Since CIA states in its proposal that the study should
include an analysis of offsetting savings to be made by reduc-
ing on-going activities or planned new ventures for which
substantial expenditures are planned, it is proposed that the
basis for evaluating the CIA alternatives be an examination of
potential benefits of the proposed CIA options in relation to
the current or projected capabilities of bibliographic systems
at other agencies. These examinations will consist of compar-
isons of the proposed CIA system to other agency systems using
the following criteria:

- Completeness
- Currency
- Relevance
- Accessibility

- Timeliness

- Security.

DISCUSSION

Completeness

3.   The working group will examine the completeness of
the RECON system by comparing the holdings of that system to
those of other community bibliographic systems. The relative
completeness of RECON can be measured by examining the number
of source materials indexed in various bibliographic systems.
Table 1 depicts a potential recording of this measurement.
It is anticipated that two different measures of this type
will be required. One will record the total number of source
documents indexed, the other will record that number in a base
time period. The first measure will display the historical
depth of coverage. The second measure will display the extent
of coverage during a common time period. A potential problem
with any bibliographic system is handling of agency-restricted
data. An analysis of the amount of data originated (or gener-
ally distributed) by other agencies but not currently maintained
by CIA in the RECON system would indicate the degree of the
problem and provide a measure of completeness.

Currency

4. Crucial to the success of the proposed system is its ability
to provide both a reference to the source document as well as to
produce the source document itself within an acceptable period of
time. This time period may vary with the purposes for which the
proposed system is to be used in the various components. The
group's examination will consist of an analysis of the average
time required to index the source documents, perform data reduc-
tion, update the index, and store sources. This will provide

a measure of the capability of related systems to provide cur-
rent references to source materials. It is anticipated that
source materials will be stored in hard copy, micrographic,
and digital form. This examination will compare the average
time required to develop the index and provide the source
documents regardless of the storage medium used. This measure
assumes that all incoming source materials are simultaneously
available to the information services departments of each
component. It is a relative measure of the capability of the
various systems to make the source material available in a
minimal time period. Figure 1 shows the proposed presentation
of this measurement.

Relevance

5.   A crucial factor in the study of the CIA options is
whether the search requirements of potential users can
be satisfied by extended access to the RECON system. Each of
the existing systems can be searched using a computer via any
one or a combination of the elements used to describe each
document. This includes title, originator, date, security
classification and description, area codes, subject codes, and
key words. The study group should examine the major categories
of subjects and area codes to determine the relationship of
codes used in existing systems to the proposed CIA system.
This examination will reveal variations in the coding structures
used to index source documents. The examination will be based
on statistics that identify the frequencies with which selected
codes are used in each index. It is assumed that much of this
information is gathered during the data base maintenance pro-
cess. Such a comparison will provide a measure of the proposed
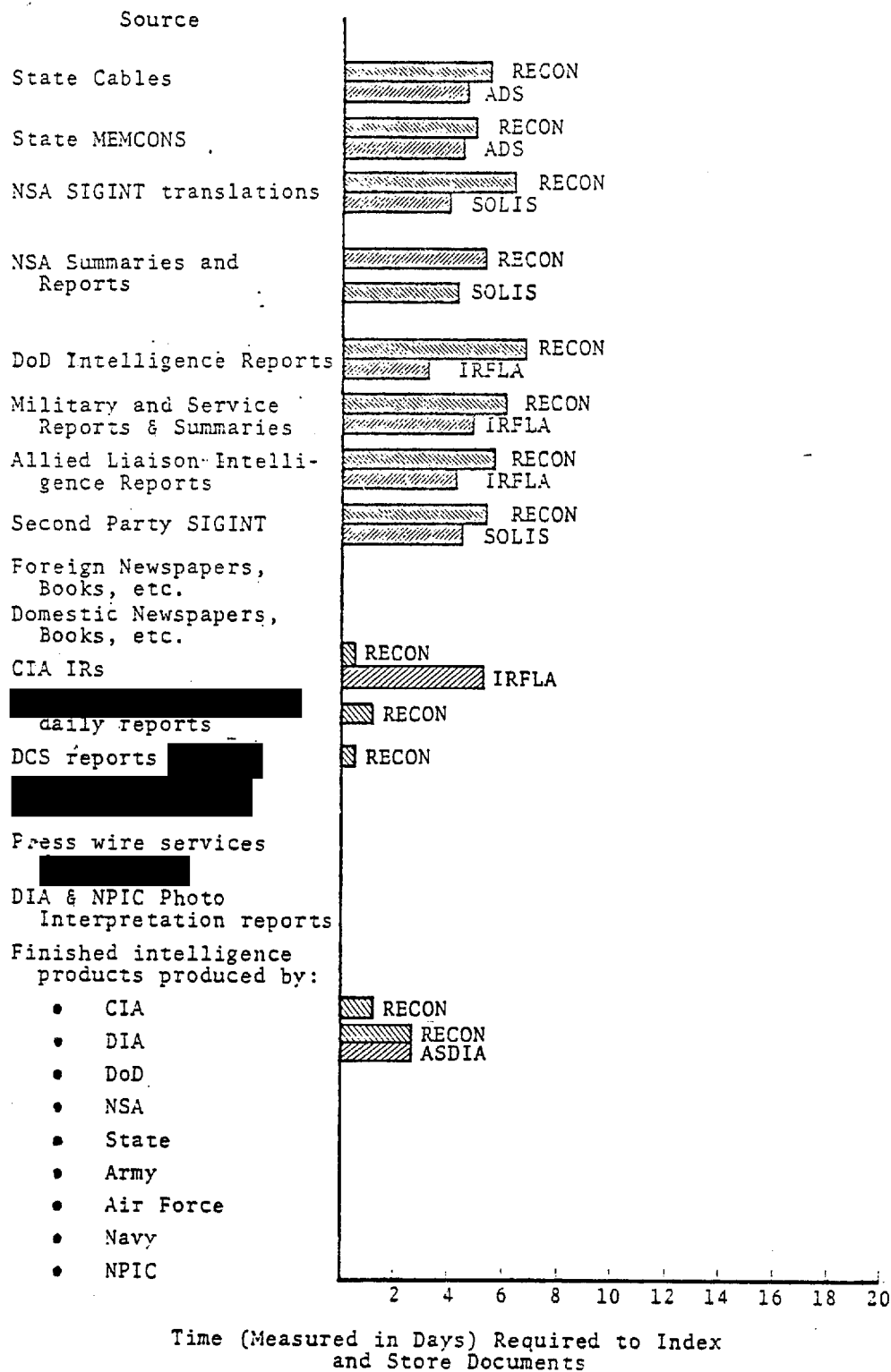system to identify relevant source documents.

FIGURE 1

EXAMPLE OF PROPOSED MEASURE OF CURRENCY
OF EXISTING BIBLIOGRAPHIC SYSTEMS

Accessibility

6.   An important factor in determining the feasibility of the alternatives is the identification of users and their projected method for accessing the system. It is assumed that the off-line service offered by CIA as option "a" for its bibliographic service would provide service to a large number of requestors via written requests for information. The two on-line options, "b" and "c", would provide access to the RECON directly (option "b"), or through an intermediary via a network linking OCR's analysts and community customers (option "c"). To examine CIA's cost assumptions, the study group will identify the number and location of potential users for each option. At a minimum, this would include the identification and location of the CIA's projected 50 simultaneous users under option "b".

Timeliness

7.   The working group will also examine the timeliness of the proposed system by comparing the various options for supplying the source materials to the current capabilities of existing systems. This measure would be that of the relative time required to satisfy a request for information for all the alternatives proposed by CIA. It would measure the average time required to satisfy a request for information from initiation by the originator to receipt of the source document by that requestor. The timeliness measurement would examine the turnaround time for an average request. Such a measure will require a detailed examination of the request logs of the information service components. Figure 2 depicts a proposed method for displaying this measure.

Requesting
  Agency
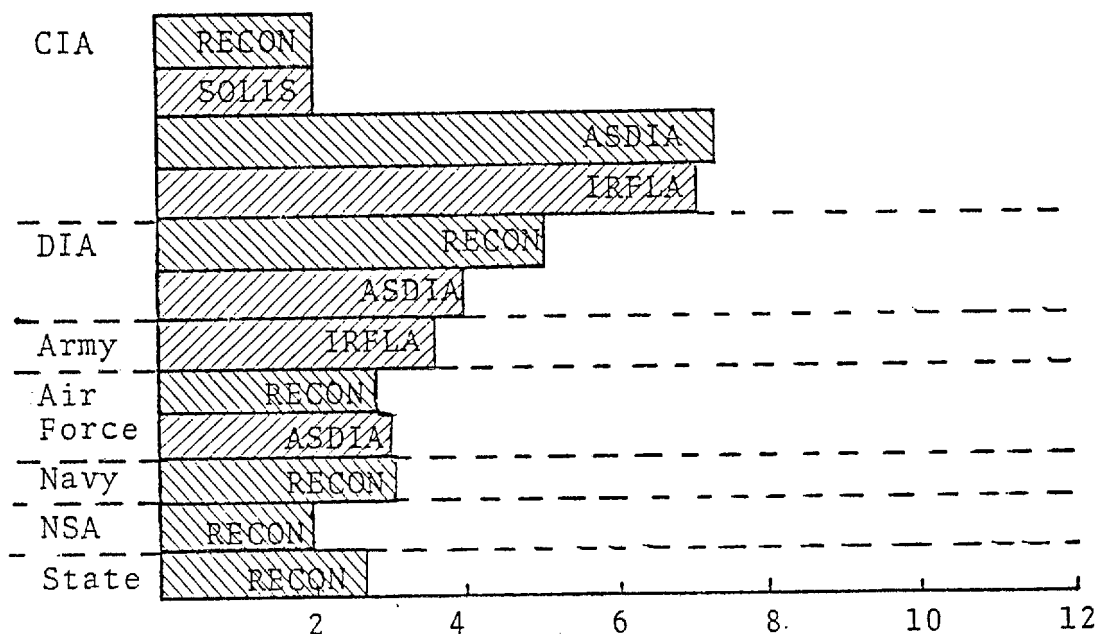
Time (measured in days) Required to Provide Information

FIGURE 2

PROPOSED METHOD FOR DEPICTING TIME REQUIREMENT
FOR PROVIDING INFORMATION TO REQUESTORS

Security

8.   One of the biggest impediments to the use of a central-
ized bibliographic reference system could be potential problems
with security. The recent Analysts' Support Study highlighted
the growing use of Agency-unique special access restrictions
such as ORCON and NODIS. Another identified problem was the
practice of classifying bibliographic references of a sensitive
document at the same level as that of the source document. The
Task Force felt that bibliographic references to a source
document could be classified at a lower level. This would
provide a reference to the document while limiting access to
the document referenced in the bibliography. The CIA partially
addressed this problem with options "3a" and "3c" by specifying
the use of an intermediary who will query the RECON system and

forward appropriate replies to the requestor; however, option "2b", the full on-line use of the database, did not address these security problems. This examination will include analysis of agency-provided statistics on the number of restricted access documents in each of the existing bibliographic systems.

9.   These six evaluation criteria are crucial to examine the potential benefits and costs of the alternatives offered by CIA. Using these criteria, the study team can systematically evaluate these alternatives to determine which alternative will potentially best satisfy user requirements. Once identified, the study team can focus on the system architecture (including communications), investment and operating costs, and recommendations for implementation.

Government Participation

10.   Many of the facts required to evaluate the CIA alternatives under this proposed method can be gathered only by querying the existing bibliographic databases at the various agencies. Under the constrained time limits imposed for the study, the government members of the group must be able to provide such data. The contractor will provide specific analyses of government supplied data required to make assessments of the CIA proposal. The government members will provide assessments of the alternatives based on contractor supplied analyses. The contractor will then document the study group assessment.

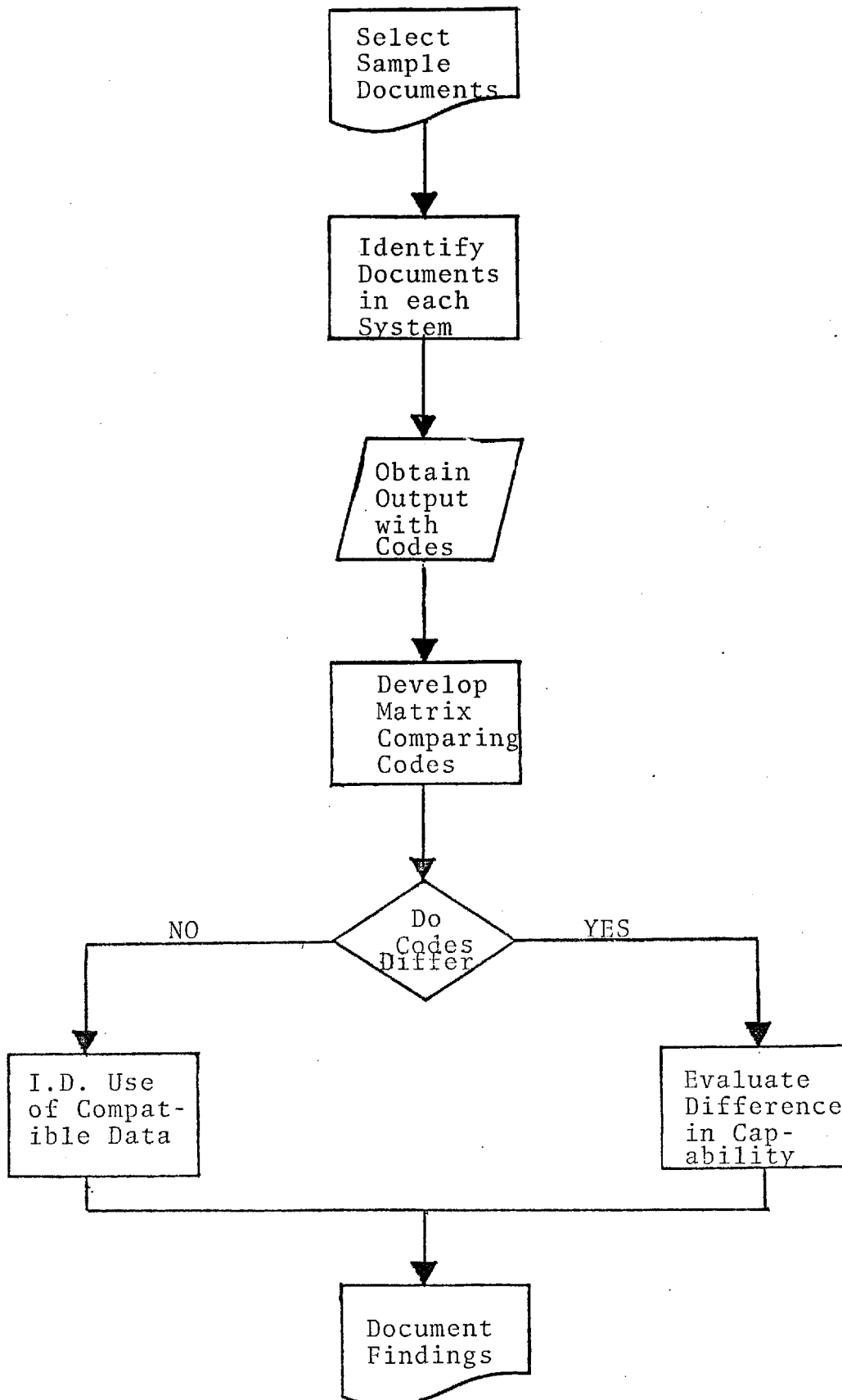## Consultant Role for Contractor

11.   The contractor's role in this effort can be described as an objective third party that will provide analytical support as required and will document the study group's assessment and findings. The contractor will develop the initial methodology

PROPOSED APPROACH FOR STUDYING
THE RELEVANCE OF RECON

- Definition of RELEVANCE - The ability of a bibliographic system to provide information on subjects of interest to all potential users

- Evaluate the capability of a RECON-based centralized reference system to satisfy potential requests for information from potential users at various agencies

- Basis of evaluation is the examination of search strategies for the various bibliographic systems

- Assumptions for the approach:

  1 - that the following bibliographic systems can be compared:

    -- CIA RECON

    -- NPIC EPF

    -- NSA SOLIS

    -- NSA STRONGBOX

    -- DIA ASDIA (all versions)

    -- DIA IRFLA

    -- DIA IRISA

    -- STATE ADS

    -- Air Force CIRC II

  2 - that the coded material placed in each bibliogrpahic system is generally representative of the type of data that would be required by analysts at each agency.

● Assumptions for the approach (continued):

   3 - that this coded information in each system can be used
       as a basis of comparison

   4 - that the coding schemes of each system can be categorized
       for comparison

   5 - that the comparison of approximately 100 documents will
       provide a fair(though not statistically pure) evaluation
       of the capabilities of the proposed centralized system

● Method for selecting documents for comparison:

  -- Documents chosen must appear in two or more systems so
     that comparisons can be made

  -- No more than 100 total documents should be included in
     this sample comparison

  -- To reduce the possibility of bias, the documents chosen
     should have already been placed in the bibliographic
     systems. (Recommend that cable materials be chosen from
     sources originated on or about 1200 noon/GMT/ZULU 17
     January 1979. Finished documents and periodicals should
     have been published in January (or the 1st quarter) of 1979)

● Recommend that the following documents be used as a sample:

  -- 15 SIGINT Headquarters Reports
  -- 15 State Cables
  -- 15 CIA finished intelligence products
  -- 15 DIA finished intelligence products
  -- 15 CIA intelligence reports
  -- 15 DoD intelligence reports
  -- 10 NPIC formal printed reports

OVERVIEW OF PROPOSED APPROACH FOR
EXAMINING THE CAPABILITY OF THE RECON
SYSTEM TO PROVIDE RELEVANT INFORMATION

```
        ┌──────────────┐
        │ Select       │
        │ Sample       │
        │ Documents    │
        └──────────────┘
               │
               ▼
        ┌──────────────┐
        │ Identify     │
        │ Documents    │
        │ in each      │
        │ System       │
        └──────────────┘
               │
               ▼
         ╱──────────╲
        ╱ Obtain     ╲
       ╱  Output      ╲
      ╱   with         ╲
     ╱    Codes         ╲
               │
               ▼
        ┌──────────────┐
        │ Develop      │
        │ Matrix       │
        │ Comparing    │
        │ Codes        │
        └──────────────┘
               │
               ▼
            ◇ Do ◇
   NO     Codes     YES
           Differ
```

I.D. Use
of Compat-
ible Data

Evaluate
Difference
in Cap-
ability

Document
Findings

SAMPLE METHOD FOR INDICATING THE INCLUSION OF DOCUMENTS
IN VARIOUS BIBLIOGRAPHIC SYSTEMS (U)

SOURCE	CIA	NPIC	NSA		DIA			STATE	AIR FORCE
	RECON	EPF	SOLIS	STRONGBOX	ASDIA	IRFLA	IRISA	ADS	CIRC II
NSA HEADQUARTERS REPORTS									
xxxxxxx 1	X		X	X					X
xxxxxxx 2	X		X	X					X
.									
.									
xxxxxxx 15	X		X	X					X
STATE CABLES									
xxxxxxx 1	X				X			X	X
xxxxxxx 2								X	
.								X	
.								X	
.								X	
xxxxxxx 15	X				X			X	X
CIA FINISHED INTELLIGENCE PRODUCTS									
xxxxxxx 1	X				X				X
xxxxxxx 2	X				X				
.	X				X				
.	X								
.	X								
xxxxxxx 15	X				X				

AIRGRAM

Original to be Filed in _____ Decontrolled Files

FILE DESIGNATION

UNCLASSIFIED A-4

HANDLING INDICATOR

TO : Department of State 4437000479

E.O. 12065: N/A

TAGS: ECFP, ENRN, FI

FROM : Amembassy HELSINKI   DATE: January 26, 1979

SUBJECT : CERP 0429 - Industrial Outlook Report - Minerals - Finland 1978

REF :

(> MINING + INDUSTRY ,
> SIILINJARVI , > OUTOKUMPU ,
> RAUTARUUKKI , > KOITELAISENKAIRA ,
> KITTILA)(C)

Summary

According to preliminary Finnish national income statistics, the value of mining and quarrying in 1978 equaled Fmk 581.6 million ($ 239.4 million)* compared to Fmk 553.3 million ($ 223.3 million)** in 1977. This is a nominal increase of 4.9 percent in Finmarks and 7.2 percent in US dollars. In 1978 mining and quarrying accounted for 0.5 percent of the gross domestic product at factor cost, the same share as in 1977. (Final figures for total extraction and the output of individual mines and specific minerals are unavailable until April.)

With known mineral deposits in Finland constantly decreasing, the mining companies concentrated on stimulating prospecting in order to secure a steady supply in the future. Some promising discoveries were made which will be subject to further investigation. Increasing emphasis has also been placed on export of mining technology and cooperation arrangements with other countries.

* U.S. $ 1.00 = Fmk 4.117, average selling rate for 1978
** U.S. $ 1.00 = Fmk 4.029, average selling rate for 1977

EA ORC/DA/WC

79 JAN 31 AM 8 13

REMAINING IN FILE
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Opening and Closing of Mines

Work on developing the Siilinjärvi apatite mine has continued. Trial run of the mine and processing plant will start at the end of 1979. Annual production of the mine will be two million tons of ore with an apatite content of ten percent. Twenty percent consists of calcium and the rest is potash. The apatite will be used for the production of fertilizers and phosphorus acid and the calcium will be used within agriculture for reducing soil acidity. When the apatite production gets started it will reduce import of apatite, valued at Fmk 400 million annually, by ten percent. The total ore supply at Siilinjärvi is estimated at 500 million tons.

The Outokumpu mine in Vammala has begun commercial operation after two years of trial excavating. The annual extraction of nickel and copper ore is 350,000 tons. Supply is expected to last for about ten years. The nickel content of the ore is 0.7 percent and the copper content 0.4 percent. The nickel production at Vammala covers one-fourth of the total nickel production in Finland.

A calcium mine at Siikainen has begun operation in the fall of 1978. Annual production is 180,000 tons. The dolomite calcium is of great importance for agriculture due to the magnesium deficiency of soil, particularly in western Finland.

No mine closings were reported during the year.

Ore Extraction and Output of Minerals

Total ore production at the Rautaruukki mines Otanmäki, Rautuvaara and Mustavaara in 1978 was 3.8 million tons. This was an increase of 600,000 tons or 15.3 percent over 1977. Iron concentrate amounted to 785,000 tons. Ilmenite production was 132,000 tons and vanadium pentoxide 5,000 tons.

Ore extraction by Outokumpu decreased seven percent in 1978. The total was 5.4 million tons, compared with 5.8 million tons in 1977. According to preliminary information the Cu content of copper concentrates was 46,870 tons of which 3,470 tons came from the Luikonlahti mine not included in the total ore extraction of Outokumpu. The Ni content of the nickel concentrates was 4,380 tons of which 290 tons was received from the Lahnaslampi mine. The Zn content of the zinc concentrates was 53,200 tons of which 1,900 tons was received from Luikonlahti.

641400 LFI
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646100
647000

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            KOITELAISENKAIRA, KITTILA) (E)
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79 Helsinki A·4

(CONTINUED ON NEXT PAGE)

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 6 AD     COM
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 8 PG     005
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10 EN     MAP OF MINES
11 MR     79 HELSINKI A-4
12 TI     CERP 0429 - INDUSTRIAL OUTLOOK REPORT - MINERALS - FINLAND 1978
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15        FI
16        MINERALS
17        CERP 0429
18        INDUSTRY
19 IA     111
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SAMPLE COMPARISON OF DATA ELEMENTS IN BIBLIOGRAPHIC SYSTEMS (U)

|	CIA	NPIC	NSA		DIA			STATE	AIR	.E
	RECON	EPF	SOLIS	STRONGBOX	ASDIA	IRFLA	IRISA	ADS	CIRC 11	
FORMATTED HEADER DATA (One per document)	DOC NR ITEM CLASSIFICATION DECLASSIFICATION DATA DOCUMENT FORMAT DOCUMENT TYPE PAGE PUBLICATION DATE DISSEMINATION CONTROLS CODEWORD CONTROL SOURCE/SERIES MANAGEMENT DATA INFORMATION DATE PROCESSING DATE		ID NR TIME/DATE CLASSIFICATION ADDEE PRECEDENCE		AUTHOR PUBLICATION DATE MICROFICHE NR CALL NR SHELF CODE	IR CLASS DOCUMENT ID. PRIMARY COUNTRY CODE IR YR DATE OF IR IR NR ORGANIZATION ID	DECLASS INFO DATE OF INFO AUTHOR TYPE OF ENCL. DATE OF IR IR CLASS MICROFICHE ID NR PAGES IR YR IR NR SOURCE ID			
FORMATTED TEXTUAL DATA (May be more than one occurrence per document)	SUBJECT CODES KEY WORDS COUNTRY IND. PLACE NAMES DIRECTIONAL INDICATORS		KEYWORDS TOPIC CODES SUBJECT INITIALS DISTRIBUTION CODES COVER NAMES		SUBJECT COUNTRY KEYWORDS	ISC ISC MODIFIER IR REFERENCES GENERAL CLEAR TEXT SECONDARY COUNTRY CODES LOCATION & SITE NAME NAME (PERSON) GEOGRAPHIC COORD.	RESTRICTIVE CAV. BIOGRAPHIC NAME INSTALLATION NAME SII CODEWORDS/NICKNAMES AREA CODES			
FREE FORM (Title, abstract)	TITLE		TITLE		TITLE ANNOTATION		TITLE			
FULL TEXT DATA										

11

SAMPLE COMPARISON OF BIBLIOGRAPHIC DATA CODED
ON THE SAME SOURCE INTO DIFFERENT SYSTEMS (U)

CATEGORY	CIA	NPIC	NSA		ASDIA	DIA		STATE	AIR FORCE	
	RECON	EPF	SOLIS	STRONGBOX	ASDIA	IRFLA	IRISA	ADS	CI	II
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ORMATTED TEXTUAL DATA May be more than one occurrence per document)	SUBJ: CHROMIUM(641400) COPPER(641700) LEAD(642500) NICKEL(643300) URANIUM(646100) MINERALS(647000) KEYWD: MINERALS MINING INDUSTRY SIILINJARVI OUTOKUMPU RAUTARUUKKI KOITELAISENKAIRA KITTILA CNTRY: REPUBLIC OF FINLAND(LFI)							TAGS: SCHEDULED REPORTING METALS & MINERALS FINLAND (FI) KEYWD: MINERALS CERP 0429 INDUSTRY 111		
REE FORM DATA Title, abstract)	TITLE: CERP 0429 - INDUSTRIAL OUTLOOK REPORT MINERALS - FINLAND 1978 (Mining Industry; SILINJARVI, OUTOKUMPU, RAUTARUUKKI, KOITELAISENKAIRA, KITTILA) (E)							TITLE: CERP 0429- INDUSTRIAL OUTLOOK REPORT-MINERALS-FINLAND 1978		
ULL TEXT DATA										

RAGEN

SYSTEM 95

Information Management System

GENERAL DESCRIPTION

The RAGEN Information Management System is a powerful information processor which integrates random data entry with on-line processing and an electronic interrogation capability. This results in a fully automated retrieval, display, and/or choice of hard copy of any one of over a million pages of written, printed, pictorial, disc resident or COM data...all in a matter of seconds.
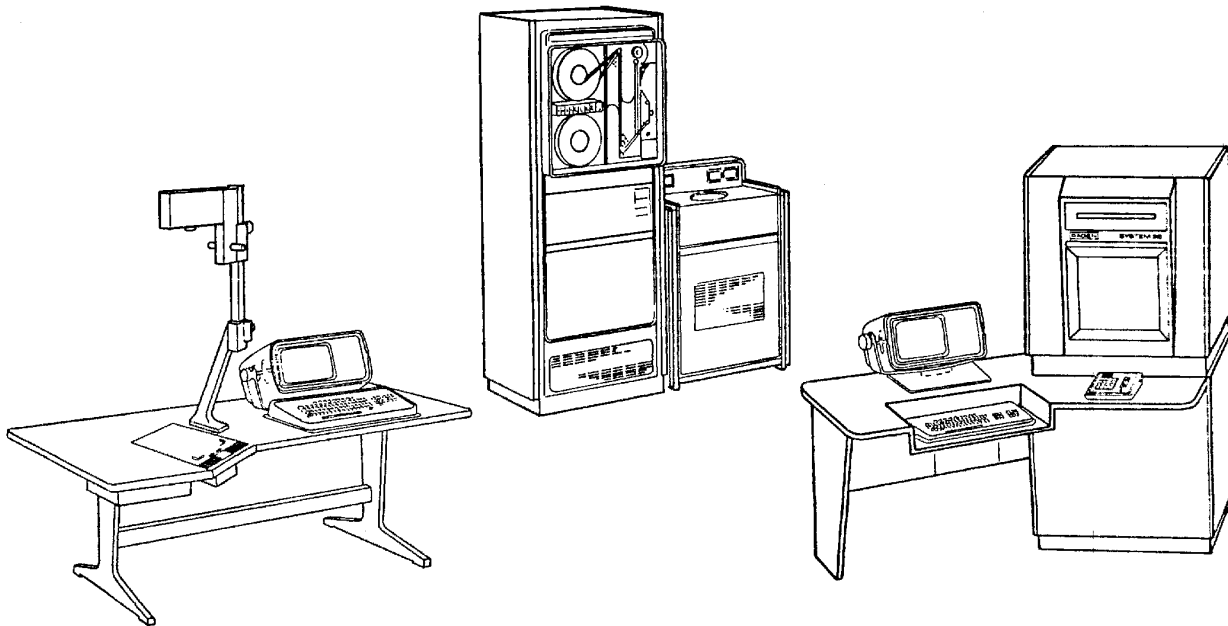
The RAGEN Information Management System consists of three expandable modular units:

- **DATA CAPTURE STATION**
- **DATA MANAGEMENT CENTER**
- **DATA ACCESS TERMINAL**

RAGEN INFORMATION SYSTEMS
500 BELLEVILLE TPK., N. ARLINGTON, N.J. 07032 (201) 997-1000

SYSTEM PHILOSOPHY

The RAGEN Information Management System is based upon a philosophy that true information management involves more than the ability to store and retrieve huge volumes of data.

A comprehensive system should accommodate all types of data input, including COM, with equal ease and a minimum of clerical effort. Random entry of data should be facilitated without the need for batching, sorting, editing, or splicing. Use of the system should be easy to learn, and operator errors should be minimized through computer prompting, verification, and control. Source documents should be handled only once for simultaneous graphic and digital data entry, with operator key stroking kept to only the standard minimum for processing.

System programming must include automatic routines for large volume random inputs, for cross reference association with the existing data base, and for automatic system address assignments to facilitate information retrieval. There must be enough computing capacity to run the system *and* do other standard data processing activities.

Information retrieval must be fully automatic in order to recover processed information quickly from the entire data base. *No* manual handling of cartridges should be needed during retrieval. The entire data base must always be intact and secure, and therefore totally available for interrogation and retrieval, with automatic association of multiple page records, and with no out-of-file conditions. Hard copies of information must be available upon demand.

Finally, the system should provide user and data base statistics for maximum efficiency. Data security must also be available so that confidential information is inaccessable to unauthorized personnel, and conversion of an existing data base should require as little manual effort as possible.

SYSTEM OVERVIEW

RAGEN'S Information Management System satisfies the demands of a total information management system by turning random input into organized information, ready for completely automated retrieval whenever needed.
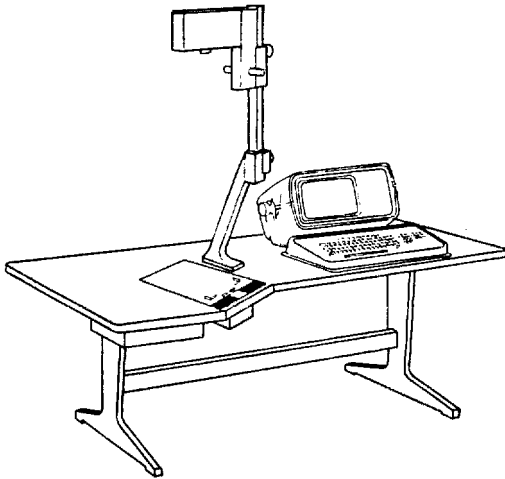
One-step random input is accomplished at the **Data Capture Station,** where digital and graphic data, from source documents are captured immediately when they first enter an organization. Assisted by computer prompting, information is keystroked only once and is available for both data processing and retrieval.

The **Data Management Center** automatically controls all input routines, assigns a system address to each input, including COM inputs, cross-references the entries, and processes data into organized information for ready access.
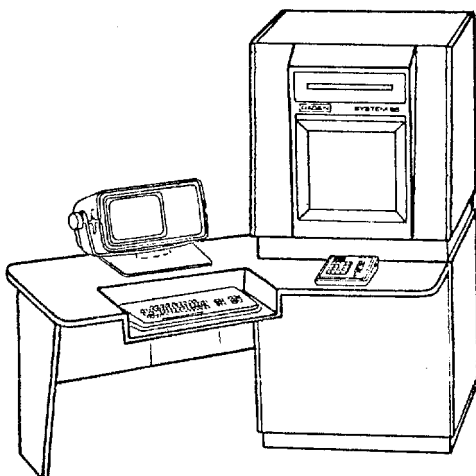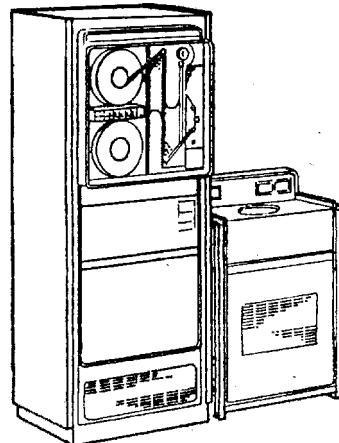
The Fully automated **Data Access Terminal** responds to every inquiry with organized information from both the digital and graphic data bases. The entire data base is available for access since all pages of information are always in file, and secure. Up to 1,200,000 pages of information per terminal can be accessed, each page in an average of less than ten (10) seconds. And a hard copy can be made of any one page or series of pages.
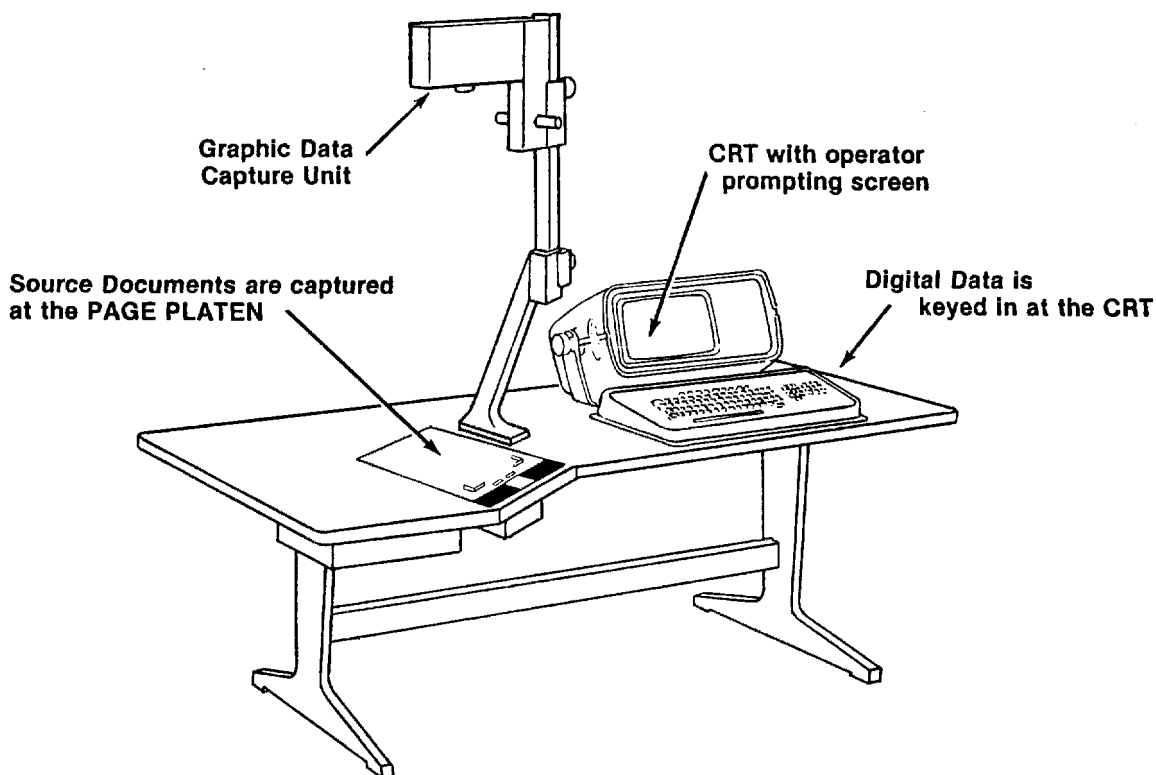
The RAGEN Information Management System is adaptable to existing data routines, and new routines can be organized for specific applications and information requirements.

DATA CAPTURE STATION

The **Data Capture Station** provides an in-house capability to enter, maintain and rapidly update data for the RAGEN Information Management System.

Graphic Data
Capture Unit

CRT with operator
prompting screen

Source Documents are captured
at the PAGE PLATEN

Digital Data is
keyed in at the CRT

DATA ENTRY PROCEDURE: At the Data Capture Station, the operator views a page of written, printed, pictorial, or other source documents on the Page Platen. The operator keys into the CRT any number of descriptors of the page (names, amounts, dates, etc.) necessary for computer processing.

A system address is then automatically assigned to the entry on the CRT, and is also automatically displayed on the Page Platen. The Graphic Data Capture Unit films the source document automatically along with the numeric display of the system address, and the operator goes on to the next entry.

Note that documents are handled only once, and that standard data is keyed in only once for computer processing.

MAINTAINING AND UPDATING PROCEDURE: Data can be randomly updated, and new data can be randomly added to the data base by following the data entry routine. The Data Management Center automatically links old and new, or updated data, for status reporting and retrieval.

THE RAGEN SYSTEM ADDRESS
and DATA ACQUISITION

The SYSTEM ADDRESS is a unique eight digit number automatically assigned at the Data Capture Station. The first four digits represent the PAGE ADDRESS...there are 4,000 pages in each RAGEN cartridge. The second four digits represent the CARTRIDGE ADDRESS...there are 300 RAGEN cartridges in each terminal. The SYSTEM ADDRESS is also the system instruction permitting automatic retrieval and display of any PAGE.

The SYSTEM ADDRESS appears as a numeric display on the PAGE Platen directly below the source document to be captured. Simultaneously the SYSTEM ADDRESS is displayed on the CRT with the descriptors (digital data describing the source document) entered by the operator. The SYSTEM ADDRESS is captured graphically with the source document, and captured digitally with the descriptors...automatically and simultaneously.

PAGE PLATEN

SOURCE DOCUMENT

● DATA CAPTURE STATION

SYSTEM ADDRESS NUMERIC
DISPLAY
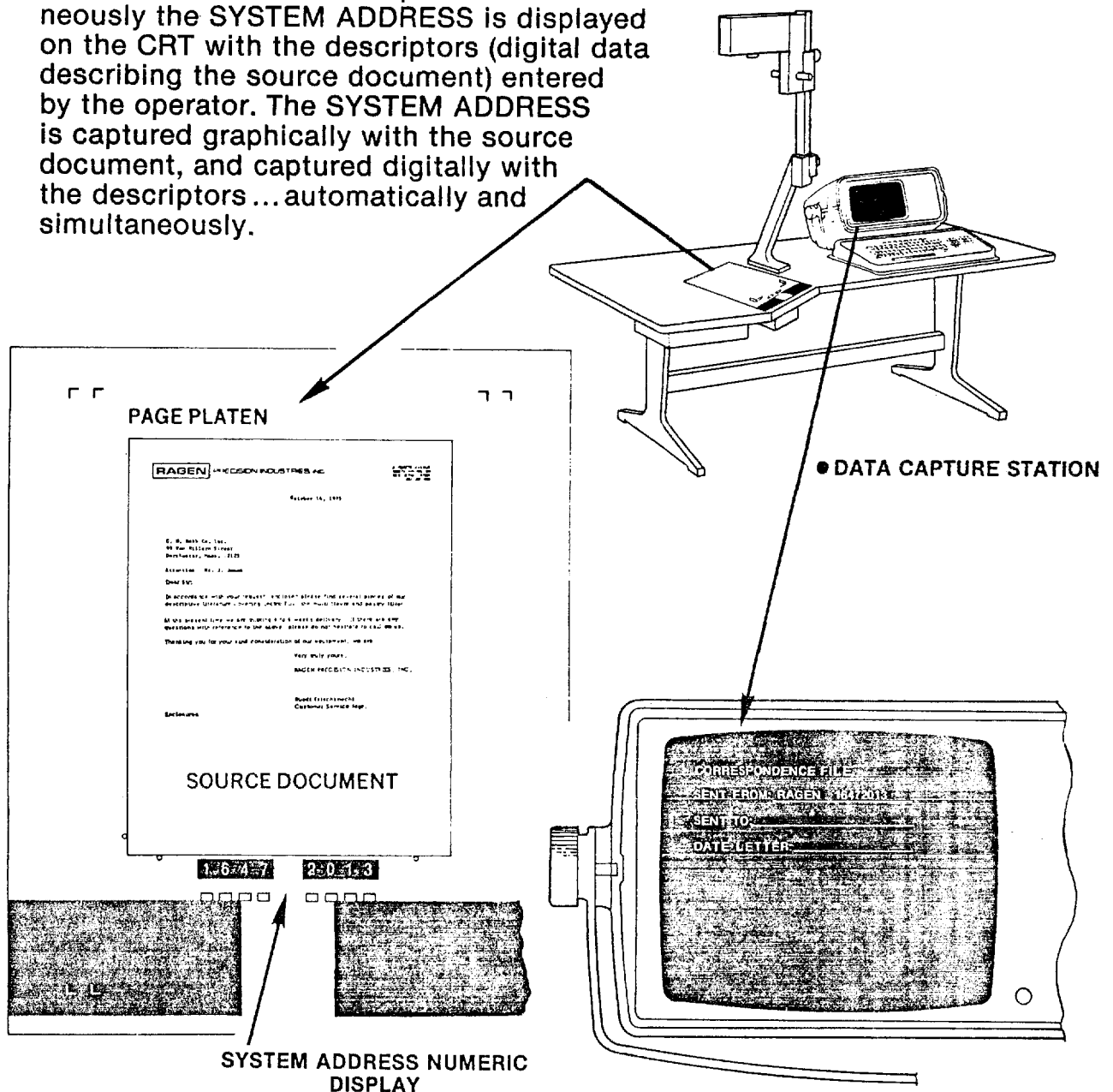
DATA ENTRY USING COM

Computer Output Microfilm (COM) can be entered directly into the RAGEN Information Management System and mixed with graphic source documents, providing a massive information resource at a very low cost.

Computer Magnetic Tape

● **DATA MANAGEMENT CENTER**

COM Recorder

● **DATA ACCESS TERMINAL**

RAGEN Cartridge
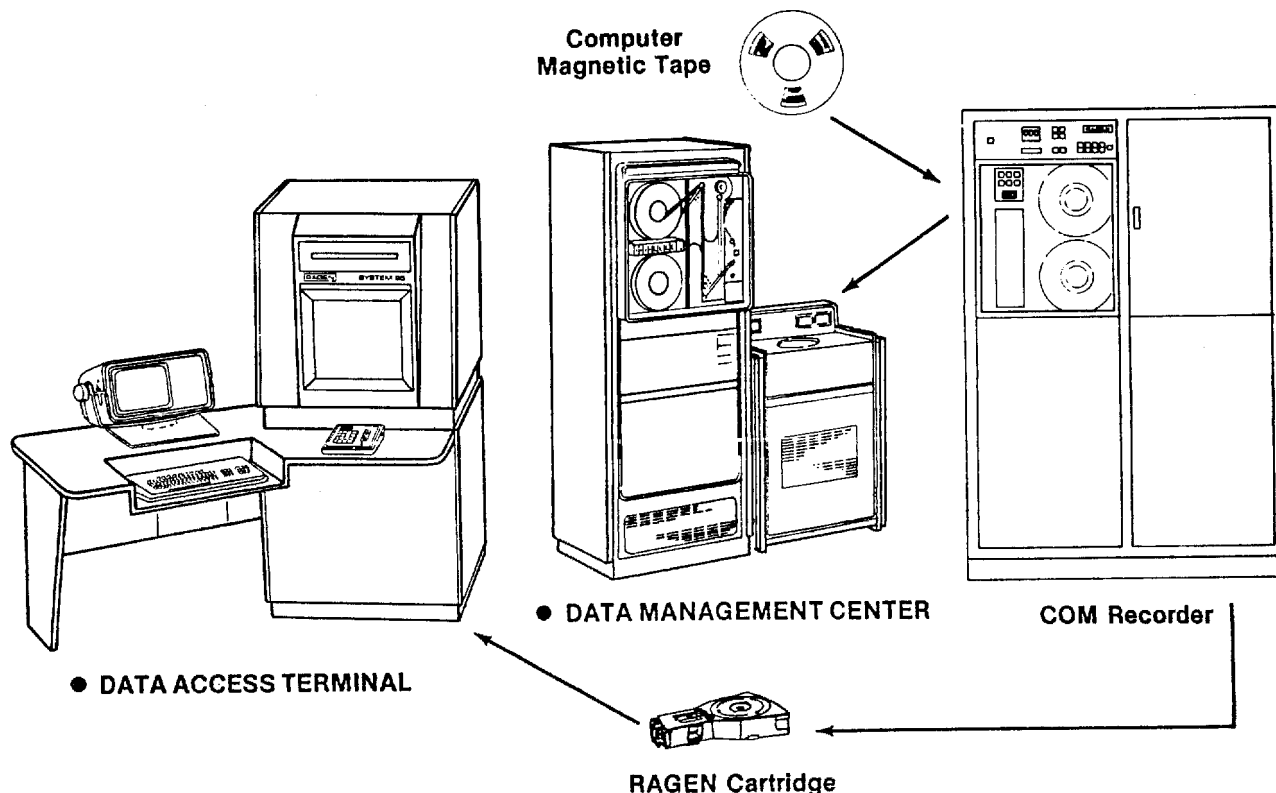
For the first time Computer Output Microfilm (COM) can be an automatic, readily accessible information data base when utilized in the RAGEN SYSTEM 95 INFORMATION MANAGEMENT SYSTEM. Use can be made of all the benefits of COM, including reductions in computer usage, memory storage, costly paper printout, supplies, and off-line printing time. The SYSTEM 95 provides powerful electronic interrogation and automatic access capability to 1 million pages of COM data. The computer generated magnetic tape that produced the COM is stripped directly into the Data Management Center automatically producing the index for interrogating the COM graphic data base.

There is no manual acquisition of graphic or digital data required for the utilization of COM with the RAGEN SYSTEM 95. All the data involved has already been acquired for other purposes.
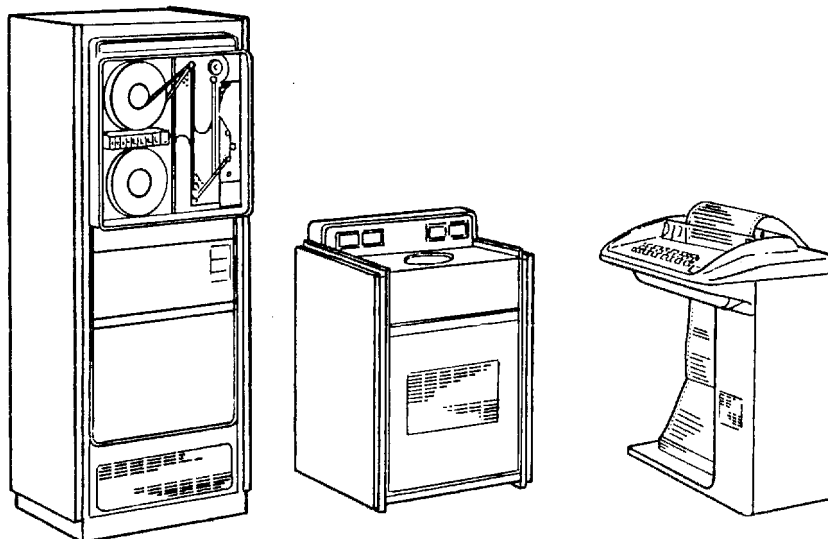
The result — ten seconds access to any page of COM or other information pages, in accordance with any means of inquiry desired.

DATA MANAGEMENT CENTER

The Data Management Center controls the entry and inquiry functions of the system, as well as handling the internal file organization and digital storage for each application.

The software is computer hardware independent and thereby the System 95 may be run in a stand alone configuration, or as a peripheral to the user's existing computer system. When provided as a turn key system, RAGEN selects the appropriate hardware to suit the user's application and volume requirements. In many instances additional computer functions will be added to provide the user with a complete data processing system. A typical Data General configuration might be:

MODEL	DESCRIPTION
8390H	Nova® 3/12 CPU with 64 K words core.
6060	96 MB magnetic disc subsystem.
6042	Dasher™/printer 30 CPS.
6021	Magnetic tape subsystems.
6053	CRT console.

The Data Management Center provides input/output interface for the Data Capture Station, Data Access Terminal, printer, magnetic disc, tape and CRT. User functions are provided to add, retrieve, change, and delete documents under programmed format control and assistance. File index linkage, system address control and sophisticated boolean logic for document identification are incorporated to facilitate data management. Integral parts of the SYSTEM 95 include the utility programs and report generator, which provide meaningful statistics and reports for total management control.

DATA ACCESS TERMINAL

At the Data Access Terminal, the operator initiates an electronic inquiry through the CRT keyboard and instantly receives information relative to the inquiry, based upon an electronic search of the entire data base. The TERMINAL contains all stored graphic data, and upon command in reference to the inquiry, automatically retrieves, displays, and offers for hard copy and page in over a million pages of written, printed, pictorial, or COM data.
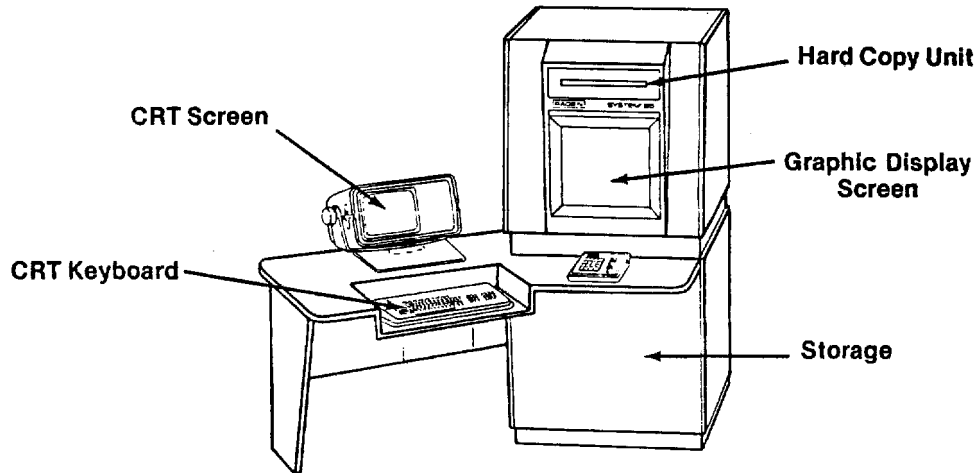
DATA ACCESS PROCEDURE: To initiate an interrogation, the operator enters an inquiry (name, number, subject, code, etc.) via the CRT keyboard and receives an immediate status report on the CRT screen as to the contents of the entire file. The inquiry can be broadened or narrowed, as desired, until satisfied. Where appropriate, the status report is a menu of the pages in file which satisfy the inquiry parameter(s), from which the operator may select any page for display.

DATA ACCESS TERMINAL ACTIONS: The Terminal automatically retrieves the required Ragen Cartridge and displays the required page thereby satisfying the inquiry. Retrieval and display of a page averages less than ten (10) seconds.
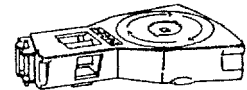
Multiple pages in a file list can be brought up for viewing in either their list sequence or in any order called for, although in actuality, the pages may be randomly dispersed throughout the file.

A dry hard copy of the displayed page can be made at any time during an automated-retrieve-display routine by key activation. Retrieve routines may continue following a three second exposure time sequence.
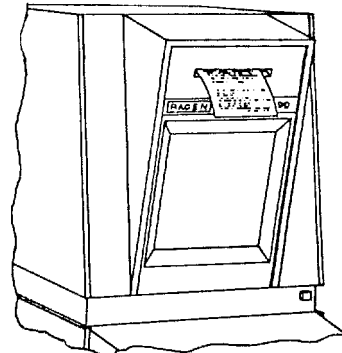
THE RAGEN SYSTEM ADDRESS
and RETRIEVAL

interrogation of the System 95 through the CRT yields a complete information display: the CRT shows a menu of pages available with their SYSTEMS ADDRESSES, and on request, the Graphic Display Screen shows one of the required pages with its SYSTEM ADDRESS at the bottom. The SYSTEM ADDRESS is the machine instruction for the Terminal, and is transmitted automatically on command without further operator action. The graphic image of the SYSTEM ADDRESS provides visual verification that the requested page has been displayed.

SYSTEM ADDRESS

© DATA ACCESS TERMINAL

RAGEN INFORMATION SYSTEMS
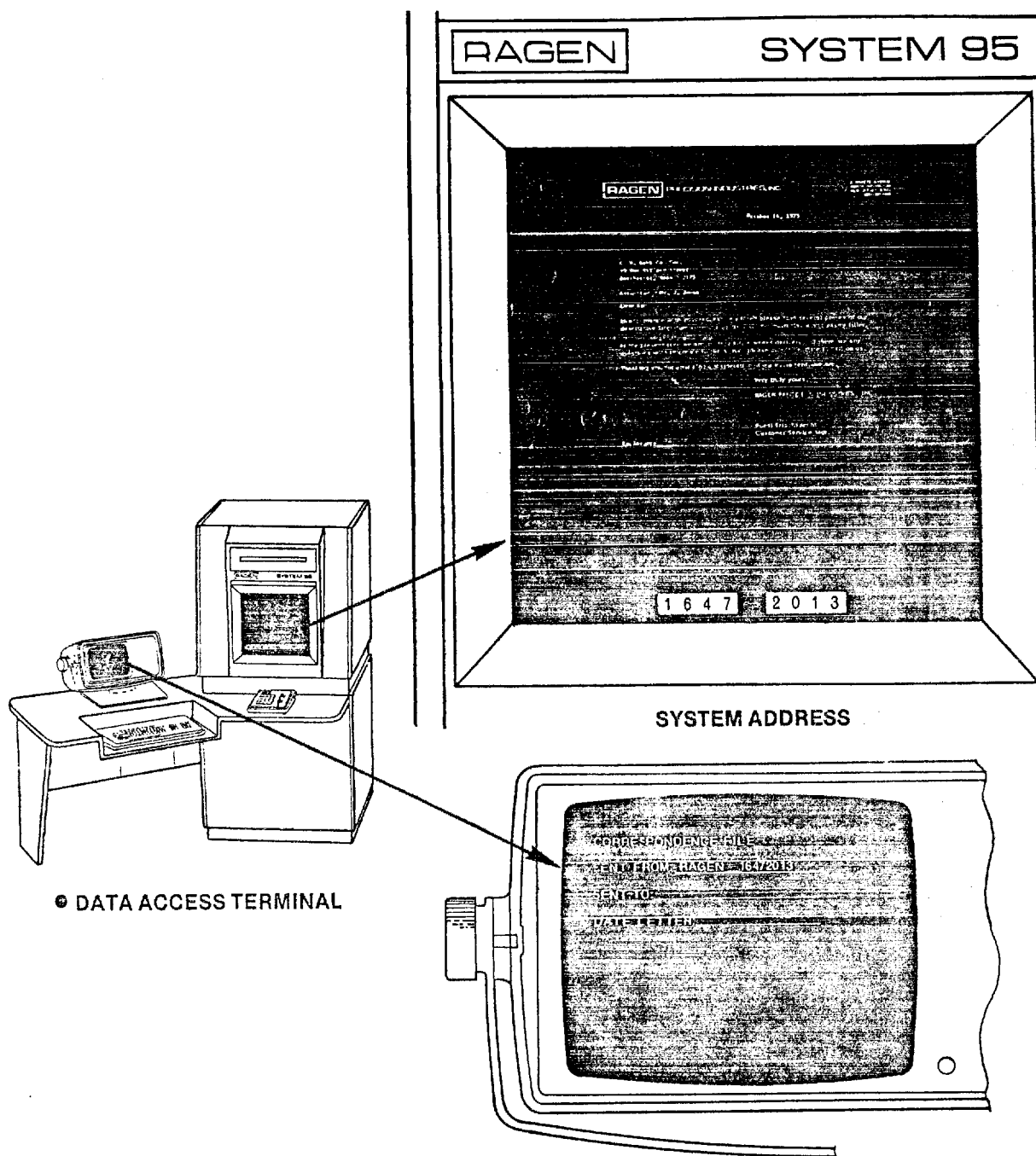
SYSTEM SUMMARY

The RAGEN System 95 is unique in having all the features necessary to qualify as a total information management system: random one-time data and document entry; on line data processing to instantly integrate and cross file all entries including COM; a huge organized file having a sophisticated electronic interrogation capability; automatic direct-access retrieval of requested digital and graphic information in response to an inquiry; hard copy of any page on demand.

digital data keyed in

● DATA MANAGEMENT CENTER

processed data available

graphic data stored for retrieval

● DATA ACCESS TERMINAL

● DATA CAPTURE STATION
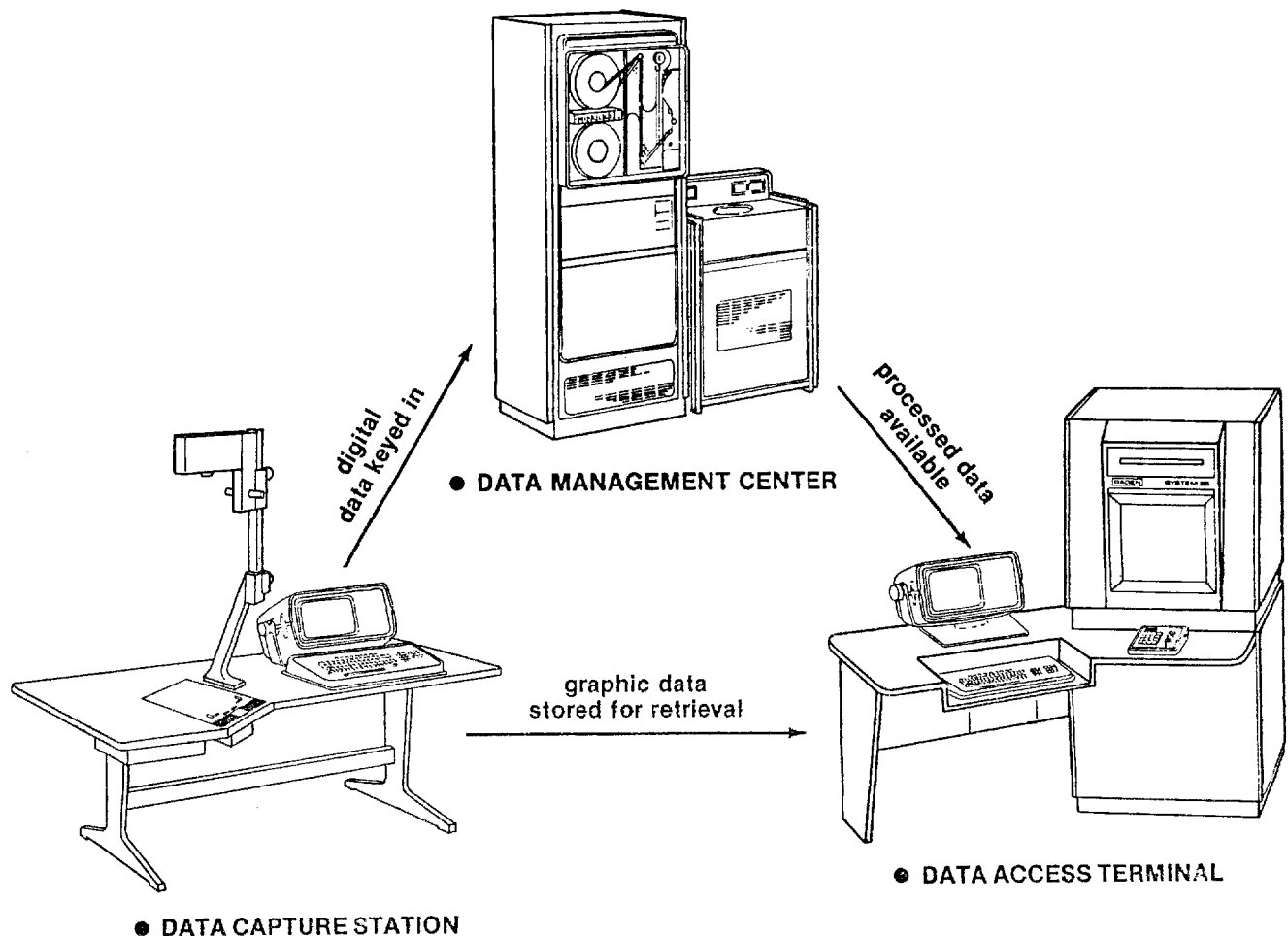
The simplicity of RAGEN's Information Management System makes it cost effective because it is easily adaptable to most information management requirements and applications. Applications have been made in both the business and the governmental sectors of the economy, and have proved themselves to be powerful tools in reducing office costs while boosting productivity.

RAGEN INFORMATION SYSTEMS

SPECIFICATIONS

DATA CAPTURE STATIONS

RAGEN Data Capture Station: comes with an RS-232-C compatable control system, and a high resolution planetary camera, adjustable reduction. Power: 115 ± 10% volts 0.5 - 1.5 AMPS.

width .... 60 inches
depth .... 32 inches
height ...... 67 inches

Multiple Data Capture Stations can be used simultaneously and remotely. COM is entered directly into the system, bypassing the Data Capture Station. Cost effective conversions of existing data bases and microforms arranged upon request.

DATA MANAGEMENT CENTER

Central Processing Unit, recommended minimum capacity: 64K Word MOS memory with parity, with full operating system, and high level language support.

Disc Storage Subsystem, recommended minimum capacity: 96-megabyte disc drive, expandable controller and adapter.

Magnetic Tape Subsystem, recommended minimum capacity: 1600-bpi P.E. operation, 75-ips tape speed, auto-entry on data transfer, auto-skip erase on auto-rewrite, supported as a file I/O device.

CRT Display, recommended minimum features: detached keyboard with teletypewriter keyboard layout, separate 11-key numeric data entry pad, 8 user-programmable function keys—Display with 64 character, upper case alphanumeric display, 1920 characters (24 lines of 80 characters each) RS-232-C or current loop.

DATA ACCESS TERMINALS

RAGEN Data Access Terminal: Storage capacity is 1,200,000 images. RS-232-C compatable as an I/O device. Printer option for hard copy. Power 115 ± 10% volts 6.5 - 15.0 AMPS.

width .... 73 inches
depth .... 39 inches
height ...... 64 inches

Multiple terminals can be used simultaneously and remotely. Up to 15 terminals can be multiplexed via hard wire or voice grade unprocessed telephone lines.

RAGEN INFORMATION SYSTEMS
500 BELLEVILLE TPK., N. ARLINGTON, N.J. 07032 (201) 997-1000

THE RAGEN SYSTEM 95 INFORMATION MANAGEMENT SYSTEM is the Total Information Processor conceptually designed and built by Ragen Precision Industries.

The SYSTEM 95 design is a logical extension to the in-house technological capabilities and expertise of Ragen for producing various types of automated systems for manufacturing processes, commercial and military electro-mechanical systems and components, high technology semiconductor packages and consumer electronic poducts.

The components and sub-assemblies comprising the RAGEN SYSTEM 95 INFORMATION MANAGEMENT SYSTEM are manufactured to the highest standards of reliability and workmanship.

CONFIDENTIAL

P. I. Log No. 69-9.

NUMBER AND CLASSIFICATION OF DOCUMENTS STORED IN CIA'S RECON FROM JANUARY 1977 - JUNE 1979 (U)

CLASSIFICATION	UNCLASSIFIED			CONFIDENTIAL			SECRET			TOP SECRET				SI					6*			OTHERS			TOTALS	PERCENTAGE
DISSEMINATION CONTROLS	77	78	79	77	78	79	77	78	79	77	78	79	77	78	79	77	78	79	77	78	79	77	78	79		
NO DISSEMINATION CONTROLS	40,127	41,861	18,218	34,898	35,490	18,972	3,985	4,381	2,005	14	9	2	90,118	85,941	45,167	12,455	19,076	518	465	334	96				454,132	55.06
																									(52,690)	
RCON*													22	1,519	885	8	13	14	5	13	11				2,966	6.38*
-- DIA	8	17	6	5	12	80	163	217	125	3	2	0	405	816	585	3,087	3,272	1,989	1,600	1,072	820	2	1		42,375	
-- CIA	2	4	35	44	328	235	1,574	16,130	10,356	8	6	4	721	2,058	1,306	1	6	2	841	1,342	1,068				7,349	
-- NSA	0	1	0	0	0	0	2	1	0	0	0	0														
INTERNAL USE ONLY													54	15	21	41	24	26	10	13	6				1,127	.136
-- CIA*	7	3	1	266	253	56	129	112	84	2	3	1														
-- DIA																										
-- NSA																										
-- STATE														1						1					27,816	3.37*
EXDIS*		3		3,571	5,125	3,533	5,441	6,547	3,541	29	15	23													0	
NODIS													2	1	1	3	2	2	7	4	1				965	.117
LIMDIS*	13	7	3	302	284	91	111	85	43	3			53	20	16	3,080	3,226	1,973	1,586	1,022	796				12,114	1.468
SENSITIVE*				13	10	7	151	99	56	11	1	6	1	3											3,685	.446
EXCLUSIVE FOR*		3		2	1	1,316	1,716	598								32	23	20	3	3					200	.024
RESTRICTED DATA*				1	7		35	60	7	1	5	1	1	1											210,136	25.48
NOFORN	36	50	46	27,590	29,775	15,036	32,339	33,277	18,725	21	21	12	5,876	5,429	2,408	5,402	5,456	2,822	4,009	3,532	2,471	2	1		61,843	7.49
CONTRACT	1	3	1	604	949	786	21,083	22,540	13,602	10	1	5	556	44	235	90	145	744	82	123	236	2	1			
																							GRAND TOTAL:		824,708	100.0

COLLATERAL (spanning UNCLASSIFIED, CONFIDENTIAL, SECRET, TOP SECRET)

COMPARTMENTED (spanning SI, 6*)

* CIA WILL NOT GIVE ACCESS TO THIS INFORMATION.   > 10%

STATINTL

Classified by 79-N-358200-000
and 013787
Review on 15 August 1999
Reason CG3

CONFIDENTIAL